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KIP ROSS, NATIONAL GEOGRAPHIC STAFF

Gondolas seem headed for a traffic jam on Venice's Grand Canal

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In Rome, youngsters in blue jeans play juke boxes in neon-advertised snack bars. Occasionally the blare of New Orleans jazz dances through doorways to interrupt conversations on Roman sidewalks. But Italians, generally, cling to custom. Their fine Italian hand still produces opera in the grand manner, superlative wines, and memorable cuisine—aside from the staple macaroni and spaghetti. They troop to art museums with the excitement Americans lavish on baseball. They take their festivals with a flair. Each first Sunday in May, Florentines don costumes of the 1500's to play at something like an old-time football game.

The Italians are lucky—almost anywhere they travel in their land they find sights others go half around the world to see. Longfellow wrote of a place where the waves and mountains meet, by the Bay of Salerno, 24 miles from Naples. In Amalfi, a cathedral dates from 1204. Amalfi's a center of macaroni production, a fine place, too, for catching fish. In Pisa, lean Italian fingers point as proudly to the house where Galileo was born as to the city's trademark, the Leaning Tower. A university was founded here in the 14th century. Napoleon organized an academy of fine arts. Now railroad equipment and textile plants rumble amid the city's ancient sights. Italy boasts about 23,000 miles of railroads and more than 106,000 miles of good highways. They lead the visitor across a landscape that varies endlessly.

Favored travelers rejoice simply in watching a sunset spill its paintpots on Lake Como by the base of the Alps. Standing at a trellised hill of Rome they will see the sun rise over classic marbles, telling of a new day, where the history of ancient days flows back almost beyond counting.

Though Italy is a peninsula, washed by bright seas, its mountains always tower somewhere on the horizon. In the North, the Alps encircle the country. South of the Po River Valley, the Apennines curve from the thigh to the toe of the boot. Volcanic Mount Vesuvius (4,190 ft.) frowning southward of Naples, has blown its top 50 times in recorded history. Famed Mount Etna rises 10,705 feet to dominate Sicily. Arno Valley fumeroles provide natural steam for running generators.

Fertile Italian ground supports about half the people. Products include olives, grapes, citrus, and other fruits. On weekdays farmers congregate in the square be-

SUN-DRENCHED NAPLES, its narrow little lanes festooned with laundry, rings with the shouts of street vendors 291

KARL GULLERS, MAGNUM

B. ANTHONY STEWART, NATIONAL GEOGRAPHIC STAFF

ITALY . . . *Glory and Hope*

© BRUNO STEFANI

JULIUS CAESAR, *statesman and military genius, built a powerful republic, the first step toward the Roman Empire*

THE centuries have dealt kindly with Rome's tall-columned Pantheon. Millions of eyes, like those of the two women and children, above, have feasted on the Eternal City's best-preserved monument. It was raised in the first century B.C., to the gods of the seven planets.

But Romans, like all Italians, take equal pride in their modern progress. It throbs through the boot-shaped land from sea-washed toe to alpine hip.

Twentieth century Italy manufactures some of the world's finest ships, cars, textiles, chemicals. Its movies have earned world acclaim. The industry is centered at Cine Città, Italy's version of Hollywood, a short ride from downtown Rome on an Italian motor scooter.

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The Coming Of The Iron Horse

SOUTHERN PACIFIC COMPANY

UNTIL May 10, 1869, few people had ever heard of Promontory Point, six miles west of Ogden, in Utah. But that day, it spelled its name for history books. Two locomotives ceremoniously panted together, one from the east, the other from the west, meeting on the Nation's first transcontinental railroad. Rail layers, railroad officials shook the air with shouts and speechmaking. Symbolic gold and silver spikes sank in a last tie of polished California laurel. And out of California that very day a train highballed toward the east, dooming the continent's long distances at last, its whistle sighing as though mourning the passing of the covered wagon era.

A hundred years ago, men realized that horse-drawn wagons had about seen their day. Trains, more trains, were needed. By 1860, locomotives rumbled from Bangor, Maine, to the Gulf, to the crossings of the upper Mississippi at Dubuque, Clinton, Rock Island, Burlington, and St. Louis. But even that wasn't enough. Farther west, fertile lands awaited plowmen and fast transportation for harvests. Besides, trade had opened with China in 1844. Cargoes of tea spoiled in salt air while journeying around the Horn to Altantic ports. Transcontinental rails would bring drinkable tea to market. And then a graver reason exploded: the Civil War. The West Coast should be tied more tightly to the Union.

East and West sprang to the challenge. From Sacramento, California, rails of the Central Pacific were laid toward the towering Sierra Nevada and the blistered Nevada Desert. From Omaha, in Nebraska Territory, easterners pounded spikes for the Union Pacific. Inexorably tracks pointed toward a meeting—somewhere. Strange-sounding tongues grumbled, shouted, as rails dropped in place. On the U. P. end, New York Irishmen mixed with ex-convicts, mule skinners from the

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fore Rome's Pantheon to talk of grain that grows on two thirds of the plowed land, of potato crops, and dairy herds. The square is a produce exchange, a hiring hall for farm workers. Elsewhere, industry-minded Italians talk of textiles, olive oil, machinery, leather goods, iron, marble, sulphur, zinc, lead, and, of course, macaroni. Many others talk of the United States. Italians feel an affection for the source of so much dollar aid, the home of so many relatives.

Between the country's brisk north and sunny, song-filled south, each large city reflects a new facet of past and present. Genoa is the country's chief port, second only to Marseille on the Mediterranean Sea. Southward, in the crowded capital, latter-day Romans, like their time-dimmed forebears, think big while paradoxically loving the leisures of civilized life. Harnett T. Kane, in the April, 1957, issue of the *National Geographic Magazine*, notes that the rush of big business stops short at around 1 p.m. to allow relaxed, expansive dining and conversation. Not until four in the afternoon are Rome's streets humming again.

Rome's way is not necessarily the rule. From the North to the boot's toe, Italy's people and character shift constantly. At Milan, near the Swiss border, businesslike Italians, often tall and blond, move through a modern city of big buildings. Down south in Naples, the Mediterranean sun bathes the darker complexions and small build of a happy-go-lucky, song-loving population. From the narrowest street booms a soulful aria from *La Traviata*. Pleasure seekers crowd small boats for romantic Capri.

© THE TIMES (LONDON), BARKER

NORTH ITALY'S Dolomite Alps scowl down on a load of grapes bound for a wine press near Trento

Glass manufacture is a famed industry of the old port of Venice. But its gondolas are better known. They swing through canals (see cover), past palaces of Renaissance merchant princes. Florence beckons to art lovers and students. Not industrial, not modern, it guards the treasured architecture and culture of yesterday. Each narrow street shows some beautiful façade or carving, carefully crafted centuries ago. Mellow sun glows on the salmon-pink and green of Santa Croce's 13th-century marble. The Arno River flows under old stone bridges, past tiny shops selling intricately tooled Florentine leather.

But all Italian roads lead back to Rome. The city blends the tempo of 20th-century life with the power of a pre-Christian era. Neon may glow by night. Yet by full moon, the Colosseum seems once more to shimmer with marble hauled in on the backs of slaves. There is a saying in Rome: "As long as the Colosseum stands, Rome shall stand. And as long as Rome stands, the world shall stand."—

one soldier. But the rails ribboned up the Platte River Valley, aiming at the Rockies. Hostile Indians, unlike ill winds, brought one benefit. Surveyors searching for a route through the foothills were chased through a pass they sought.

Hundreds of buffalo frequently milled about the track builders. Later, they sometimes halted the passage of trains by crossing tracks in lumbering herds. "Buffalo Bill" Cody earned his nickname by supplying 12 buffalo a day, for $500 a month, to railroad workers in the late 1860's. Some travelers found "sport" in shooting at the beasts from train platforms (GSB May 9, 1955).

The Central Pacific's main troubles were weather and terrain. A remarkable treaty pacified the Shoshonis, and Paiutes. Influential chiefs got passes to ride passenger coaches. Ordinary tribesmen rode free on freight cars.

Weather lashed at the Chinese on 6,000-foot heights of the Sierras. Grades often whitened under 15 feet of snow. Smoke veils trailed from five locomotives panting at one snow plow to clear the way. Avalanches drummed. Four times, entire camps, with occupants, were swept into canyons. By 1868 trains were bringing loads of heavy freight down the eastern slopes. Equipment piled up for rail laying on the Nevada desert. The U. P.'s motley builders, meanwhile, had sweated, frozen, and cursed past the summit of the Rockies, in Wyoming.

By early 1869, both sides sensed a race. Rail-laying records were shattered. A Central Pacific boss bet $10,000 that he could build 10 miles in 12 hours. He won it on April 28, 12 days before the meeting at Promontory Point.

That was 88 years ago. Businessmen, tourists, movie stars, housewives, and babes in arms whirl across the continent today as effortlessly as if they were going four blocks in a taxi. But as their streamliner hits 90 miles an hour, its clicking wheels sing of half-forgotten hardship, courage, and triumph.—S.H.

Plains, mountainmen from the Rockies, and later, ex-soldiers of North and South —all turned railroad hands.

Central Pacific builders felt a pinch of man power, because the gold rush crowds were declining. So they grabbed up swarms of Chinese immigrants from laundries and vegetable patches, and set them to laying rails. They averaged 110 pounds of weight but worked like demons. Building equipment, meanwhile, took months to come by the Cape Horn route. The locomotive "Governor Stanford"—first on the coast—moved 19,000 miles on the ship *Herald of the Morning.* It caused a shuddering fright by nearly falling overboard while men were unloading it from

UNION PACIFIC RAILROAD

BUFFALOES sometimes milled on tracks, inspiring this artist's idea of a deterrent

the schooner that brought it up the Sacramento River to the railhead. U. P. builders had troubles, too. River boats loaded with equipment churned up the troublesome Missouri River to Omaha. Then, by 1867, the Northwestern Railroad outraced two others across Iowa to Council Bluffs. It relieved the U. P. of its supply problem.

Other problems died harder. Ahead drowsed leagues of plains, then called the Great American Desert. Indians bristled at the intrusion on their buffalo preserves. The ex-soldiers were issued revolvers, rifles, and carbines. Often across Nebraska and Wyoming they dropped work tools to fight. Scant troop protection arrived. It was hard, an officer complained, to surround three Indians with

south crest, drops some 17,000 feet to the wooded countryside in what Dr. Washburn calls "a terrific slope of glittering ice and rock."

In 1910, a party of four hard-headed sourdoughs from Fairbanks conquered this North Peak. Knowing little about mountaineering, they simply kept on climbing where many experts might have turned back.

The South Peak, apex of all North America, defeated a party of climbers in 1912, hurling a savage storm in their faces as they neared the top. The violent weather turned them back only 100 yards short of their goal.

A year later, the peak succumbed to a party led by Archdeacon Hudson Stuck of the Episcopal Church of Alaska. Nineteen years were to pass before anyone else tasted success over this grandly isolated crown of the continent.

BRADFORD WASHBURN

Dr. Washburn's ascents, and others, have made McKinley an oft-conquered mountain in more recent years (above). During World War II three military teams studied the effects of cold climate in its high slopes. McKinley's glacier-flanked bulk rises from McKinley National Park, second largest after Yellowstone. Its 3,030 square miles abound with wildlife—caribou, Dall sheep (GSB Feb. 11, 1957), grizzly bears, wolves, foxes, and northern birds. Occasionally earthquakes jar the area, a reminder of the mighty forces that built the range. Planes and trains bring visitors to the park. A road connecting with the Alaska highway will soon give access to cars.—E.P.

National Geographic References: ***Map***—Alaska (paper, 75¢; fabric, $1.50). ***Magazine***—June, 1956, "Alaska's Warmer Side" (out of print; refer to your library); August, 1953, "Mount McKinley Conquered by New Route" and "Wildlife of Mount McKinley National Park" (75¢); July, 1938, "Over the Roof of Our Continent" ($1.00).

THE CONTINENT'S HIGHEST MOUNTAINS

1. Mount McKinley	Alaska	20,320 feet
2. Mount Logan	Canada	19,850 feet
3. Citlaltepec (Orizaba)	Mexico	18,700 feet
4. Mount St. Elias	Alaska-Canada	18,008 feet
5. Popocatepetl	Mexico	17,887 feet
6. Mount Foraker	Alaska	17,400 feet
7. Iztaccihuatl	Mexico	17,343 feet
8. Mount Lucania	Canada	17,150 feet
9. King Peak	Canada	17,130 feet
10. Mount Blackburn	Alaska	16,523 feet

California's Mount Whitney, rising 14,495 feet, tops United States peaks, ranks 24th in North America. (Figures from National Geographic Society's Research Division as supplied to almanacs and encyclopedias)

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BRADFORD WASHBURN

Roof Of North America

Mount McKinley looms higher than you may think. Since June, 1956, National Geographic maps have labeled its height as 20,320 feet above sea level. This adds at least 20 feet to the stature of the continent's tallest peak.

It's not that mighty McKinley has actually grown since the day in 1896 when William Dickey, a Princeton graduate, first spotted it through his transit and judged its height at over 20,000 feet. But more thorough surveys have resulted in more accurate figures. Expeditions of the National Geographic Society, led by Dr. Bradford Washburn, now director of the Boston Museum of Science, supplied much information that gave a new value to this massive, storm-swept Alaskan monarch. Dickey first pinpointed the mountain and named it for William McKinley who had just been nominated for the presidency. But more than a century earlier the huge range which McKinley tops was sighted by a British sea captain. George Vancouver, slipping through Cook Inlet in 1794, saw "distant stupendous mountains covered with snow and apparently detached, gleaming far inland." McKinley itself lies about 140 miles north of Cook Inlet.

Modern travelers on the Alaska Railroad get the same view—especially at evening when McKinley's frosted cap catches the last rays of sun and glows above the darkening plains. The mountain probably soars higher from its base than any other on the earth's land surface. Its North Peak, slightly lower than the

ANITA FORSLUND, 8 (SWEDEN)

MARGERY SCHULER, 11 (CANADA)

EDGAR AUGUSTO ROBALINO A., 11 (ECUADOR)

A Bright World Through Young Eyes

to strengthen the understanding between different peoples—as well as to allow grownups to share the wonders that appeal to childhood's eyes.

A young Algerian dreamed up the spotted cow, left, little concerned by such details as the correct number of legs or position of the udder. "The Funniest I Know Is Mud Puddles" is the artist's title for girls in the rain, above. Fishing in Canada and bull-fighting in Ecuador are familiar subjects for young Rembrandts of those lands.

Individuals or groups may see the children's art display and other National Geographic exhibits on weekdays 10 to 6, Saturdays 10 to 5, and Sundays 12 to 5.

Children's Art

From the color pages of the March, 1957, *National Geographic Magazine*

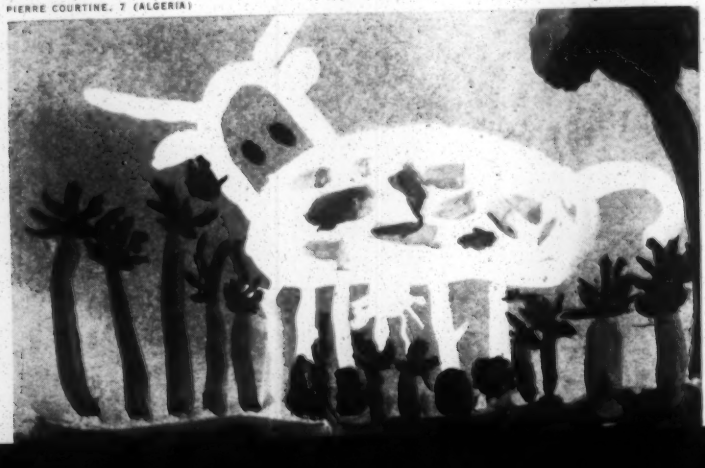
"THOSE poor little animals in the zoo behind a fence," appealed to five-year-old Erika Reimann, of Berlin. So she painted a panda, lower left, on a handy newspaper. It's one of many children's paintings to be displayed in Explorers Hall at the National Geographic Society's Washington headquarters, April 7 through April 26.

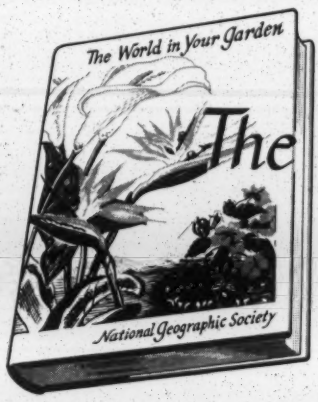
A Philadelphia artist, D. Roy Miller, shown at left with two enthusiasts, collected the art of youngsters from all over the world. He exhibits the pictures in order

JOHN E. FLETCHER, NATIONAL GEOGRAPHIC STAFF

ERIKA REIMANN, 5 (GERMANY)

PIERRE COURTINE, 7 (ALGERIA)





The World in Your Garden

Do you like broccoli? The Romans did. And in China, where radishes originated, the peppery tidbit grows big as watermelons.

In fact, most garden vegetables came from abroad. Herodotus described lettuce on the tables of Persian kings of the 6th century B.C. Ancient Persia also gets the credit (or blame) for spinach.

Many Old World plants found roundabout paths to America. Black-eyed peas, for instance, moved from India to Africa in prehistoric times and made the jump to the New World on slave ships in colonial days.

The shape of eggplant (below) inspired its present name. It went by other titles in ancient Sanskrit, Bengali, and Hindustani. Arabs carried it into the Mediterranean area in the Dark Ages and Spain introduced it to America.

What fascinating geographic romance lies hidden in your vegetable garden, on supermarket shelves! The National Geographic Society's forthcoming book "THE WORLD IN YOUR GARDEN" explores this wonderland of plants with exquisite color illustrations and text. Not only are vegetables included, but flowers and fruits as well.

In this exciting book you will journey with Columbus, Magellan, da Gama, Cook. You will see men daring unknown seas, fighting pirates, and skirting dangerous shores for the lure of plants. The *Bounty* will sail past, with Captain Bligh zealously guarding the cargo of South Seas breadfruit he hopes to transplant in the West Indies.

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